

Remarks

In the foregoing amendment, claims 1 and 6 are amended and claims 2 and 5 canceled. Claims 3-4 and 7-15 have been withdrawn from further consideration. Now pending in the application are claims 1 and 6, of which claim 1 is independent.

Drawings

The drawings are objected to as failing to include reference sign 110 in Figure 11 because the description of Figure 11 at page 23 of the specification makes reference to reference sign 110. In response, Applicants amend the specification to indicate that reference sign 110 described at page 23 of the specification refers to Figure 5, not Figure 11. In light of the foregoing amendments to the specification, Applicants respectfully request that the Examiner reconsider and withdraw the objection to the drawings.

Specification

The specification is objected to because the trademarks “Hastelloy” and “Inconel” are not capitalized. In response, Applicants amend the specification to capitalize the trademarks “Hastelloy” and “Inconel.” In light of the foregoing amendments to the specification, Applicants respectfully request that the Examiner reconsider and withdraw the objections to the specification.

Claim Rejections under 35 U.S.C. §112

Claims 5-6 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In response, Applicants amend claims 1 and 6 to change “the metal” to “the metal body.” In light of the foregoing claim amendments, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 5-6 under 35 U.S.C. §112, second paragraph, and pass the claims to allowance.

Claim Rejections under 35 U.S.C. §102

Claims 1-2 and 5-6 are rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Publication No. 2002-208153 ("JP 2002-208153"). Applicants respectfully traverse the rejection for the following reasons.

In the foregoing amendment, claim 1 is amended to incorporate the subject matter recited in claims 2 and 5. Claims 2 and 5 are subsequently canceled.

Claim 1 is directed to a separator assembly for a fuel cell stack. The separator assembly includes a diffusion layer including a porous metal body for supplying one of fuel and oxidizer to an electrode of the fuel cell stack. The separator assembly also includes a separator including a metal plate disposed adjacent to the diffusion layer. The diffusion layer and the separator are welded together by laser welding. Flow passage partitions are formed in the diffusion layer so as to define a flow passage for the fuel or oxidizer in the diffusion layer. Claim 6 depends from claim 1 and adds separate and patentable limitations to claim 1.

Applicants submit that JP 2002-208153 does not disclose that *flow passage partitions are formed in the diffusion layer so as to define a flow passage for the fuel or oxidizer in the diffusion layer*, as recited in claim 1.

JP 2000-208153 relates to a solid polymer electrolyte fuel cell. JP 2000-208153 discloses in Fig. 1 that the separator (1) is press molded into corrugated form. JP 2000-208153 also discloses that the protruding parts of the corrugated separator (1) are bonded to the gas diffusion layer (2) by resistance welding. Although the corrugated separator of JP 2000-208153 forms a gas passage, the cited reference does not disclose that flow passage partitions are formed in the diffusion layer so as to define a flow passage for the fuel or oxidizer in the diffusion layer, as recited in the claimed invention.

Additionally, Applicants submit that JP 2000-208153 does not disclose that *a cooling layer and a separator are welded together*, as recited in dependent claim 6.

In an embodiment of the present invention described with reference to Figure 11, there is provided a cooling layer (108) made of a porous metal body, such as one made of stainless steel,

HASTELLOY®, INCONEL®, Au, Cu, Ni, Al, or Ti. In the embodiment, not only is the anode side diffusion layer (103) laser-welded with the anode side separator (105), but also the cooling layer (108) is laser-welded with the anode side separator (105). That is, the anode side diffusion layer (103), the anode side separator (105), and the cooling layer (108) are welded together to form the separator assembly (107A). JP 2000-208153 discloses that adjacent separators form a coolant passage. JP 2000-208153, however, does not disclose that a cooling layer and a separator are welded together, as recited in the claimed invention.

In light of the foregoing claim amendments and arguments, Applicants respectfully request that JP 2000-208153 does not disclose each and every element of claims 1 and 6. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 1-2 and 5-6 under 35 U.S.C. §102(b), and pass the claims to allowance.

Claim Rejections under 35 U.S.C. §102 or §103

Claims 1-2 are rejected under 35 U.S.C. §102(b) or §103(a) as being anticipated by, or obvious over, Applicant's Admission of Prior Art. Applicants respectfully traverse the rejection for the following reasons.

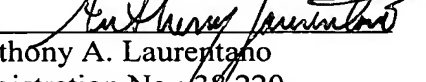
In the foregoing amendment, claim 1 is amended to incorporate the subject matter recited in claims 2 and 5. In light of the foregoing claim amendments, Applicants respectfully submit that the rejection of claims 1-2 is moot. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 1-2 under 35 U.S.C. §102(b) or §103(a), and pass the claims to allowance.

Conclusion

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: August 17, 2006

Respectfully submitted,

By 
Anthony A. Laurentano
Registration No.: 38,220
LAHIVE & COCKFIELD, LLP
28 State Street
Boston, Massachusetts 02109
(617) 227-7400
(617) 742-4214 (Fax)
Attorney/Agent For Applicant